

CLIMATOLOGICAL DATA FOR JULY, 1913.

DISTRICT NO. 8, TEXAS AND RIO GRANDE VALLEY.

B. BUNNEMEYER, District Editor.

GENERAL SUMMARY.

July was generally warm and dry, with a large percentage of sunshine and few rainy days. The excess of temperature was greatest in the interior and northern portions of Texas, while deficiencies occurred in southeastern New Mexico and along the lower Texas coast. Temperature extremes were marked, especially in New Mexico, where high day temperatures during the first half of the month were followed by damaging frosts in the higher northern districts on the 27th or 28th.

Precipitation occurred in scattered local showers and was decidedly deficient, except in a few limited sections which had heavy local rains. The only considerable area receiving more than the normal amount was in northeast Texas. The deficiency was most pronounced in the south-central portion of Texas, where the average rainfall was less than one-fourth inch; and for the district as a whole the month of July goes on record as one of the driest months of that name. Because of the abundant precipitation in June the moisture was ample during the first half of the month, but at its close the drought had become serious in many localities. The effect of deficient moisture was intensified by excessive sunshine and high day temperatures. In Texas the average number of clear days is the greatest of record for that month, and the average number of rainy days the least. The number of days with 0.01 inch or more of precipitation averaged 7 in Colorado, 5 in New Mexico, and 2 in Texas. The greatest and least monthly amounts of precipitation were, respectively, in Colorado, 2.15 inches at Platoro and 0.95 inch at Manassa; in New Mexico, 3.86 inches at Windsors and a trace at Laguna; and in Texas, 10.95 inches at Greenville and a trace at 10 stations, while at 13 others there was no precipitation. Excessive rains of 2.50 inches or more in 24 consecutive hours occurred at 6 stations in Texas, the heaviest reported being 5.70 at Greenville on the 3d.

The prevailing winds were from the southwest in the western portion of the district, from the south in the middle portion, and from the southeast along the Texas coast. The highest wind velocity reported was 64 miles per hour at Roswell, N. Mex., on the 14th.

TEMPERATURE.

The monthly mean temperature was 0.8° above the normal in Colorado, 0.2° below in New Mexico, and 1.2° above in Texas. High day temperatures were the rule up to the last decade, with the highest for the month generally occurring between the 5th and 11th, except in south Texas, where the 20th was the hottest day. Late on the 20th, however, severe wind and electrical storms occurred, which caused a sudden drop in temperature; and at several south Texas stations both the highest and

lowest temperatures of the month were recorded on this date. The last decade was cool in the western portion of the district, with lowest temperatures generally occurring between the 26th and 29th. The nights as a rule were cool and the average daily range of temperature large, varying from 9° on the upper Texas coast to 39° in portions of New Mexico.

The highest and lowest temperatures reported were, respectively, in Colorado, 98° at Saguache on the 6th and 24° at Hermit on the 29th; in New Mexico, 109° at Carlsbad and Richland on the 11th and 32° at Red River Canyon on the 25th and at Tres Piedras on the 27th; and in Texas, 110° at Denton on the 10th, at Jewett on the 20th, and at Graham on the 23d and 50° at Stamford on the 26th. The local monthly means ranged from 51.8° to 65.4° in Colorado, from 56.8° to 81.8° in New Mexico, and from 73.0° to 88.4° in Texas.

PRECIPITATION.

The precipitation was decidedly deficient throughout the Rio Grande watershed except in its extreme upper portion, which received a slight excess. The average for the watershed was 1.21 inches, which is 0.90 inch less than the normal and less than half the total for the preceding month, although normally the rainfall for July is double that for June in this watershed.

The Rio Pecos watershed showed a general and marked deficiency of precipitation, the average amounting to only 0.93 inch, which is 2.44 inches less than the normal.

The precipitation over the Texas watersheds was also decidedly deficient, except over the Sabine drainage area which received heavy to excessive rains over its upper portion, giving an excess for the watershed as a whole of 1.05 inches. The other Texas watersheds showed deficiencies that ranged from a minimum of 1.33 inches for the Trinity to a maximum of 3.00 inches for the Neches. Exceptionally dry weather prevailed over the San Antonio watershed, and the percentage of deficiency was greatest over that drainage basin. The following are the average monthly amounts in inches and hundredths for the various Texas watersheds: Nueces, 0.68; San Antonio, 0.14; Guadalupe, 0.44; Lavaca, 1.00; Colorado, 0.96; Brazos, 0.81; Trinity, 1.93; Neches, 1.42; Sabine, 4.74; and coastal plains, 0.94.

RIVER CONDITIONS.

High water continued in the Nueces River and its tributaries during the first decade from the excessive rains during the last few days of June. The East Fork of the Trinity and the extreme upper Sabine were at flood stage for several days following the excessive rains in Hunt and adjoining counties between the 1st and 4th. These rains covered only limited areas and were not

sufficient to cause overflows in the main trunks of these streams, although the rises in their middle and lower portions amounted to from 15 to 20 feet between the 6th and 20th. Slight rises occurred in the upper Trinity between the 25th and 30th, and in the Brazos and Colorado during the first decade. The Guadalupe was at low water mark throughout the month.

EXCESSIVE RAINS IN HUNT COUNTY, TEX.

Between 7 a. m. July 1 and 7 a. m. July 4, a series of heavy local showers occurred over a limited area in northeast Texas which caused much damage in that section. The morning weather map of the 2d showed a shallow barometric depression of small diameter over northern Texas, with lowest barometer reading 29.88 inches at Fort Worth, which was attended by showers in that section. The total rainfall from these showers at Greenville, Hunt County, amounted to 10.55 inches, but at surrounding stations it was much lighter. The amount at Bonham, Fannin County, during the same period, was 3.90 inches; at McKinney, Collin County, 2.30 inches; and at Kaufman, Kaufman County, 3.65 inches. From the havoc wrought it seems that the rainfall west or southwest of Greenville must have been in the nature of a cloudburst on the morning of the 2d. Creeks and streams and all lowlands in that section were flooded. Levees were broken and many acres of the richest agricultural lands in the State were under water. Bridges were destroyed, roadbeds badly washed, and traffic and communication

interrupted for several days, and much other damage resulted from the water. The loss in Hunt and Rockwall Counties is estimated at over \$1,000,000.

MOCK SUNS.

By HOWARD H. MARTIN, Assistant Observer, Fort Worth, Tex.

The phenomenon of "mock suns" or "sun dogs," although rare in Texas, was observed on the morning of July 24, under favorable conditions.

At sunrise, 5.37 a. m., the sun was hidden by a bank of dense alto-stratus clouds which gradually merged into thinner cirro-stratus. At 6.10 a. m., there appeared a well-defined halo of 22° radius, with a brilliant mock sun at each end of its horizontal diameter and at an altitude of perhaps 10°, each surrounded by a faint corona.

Above these mock suns, and to the outside, appeared fainter splotches of light, indicating the presence of another halo. The density of the attendant alto-stratus cloud was, however, too great to permit the observation of this halo.

The presence of halos and mock suns is generally considered a forerunner of precipitation, and in this case particularly, was the theory borne out. A sharp electrical storm with excessive rainfall occurred within 6 hours after the disappearance of the phenomenon. Accompanying the storm was a marked drop in temperature, the fall, though temporary, amounting to 38° in less than 3 hours.

TABLE 1.—*Climatological data for July, 1913. District No. 8, Texas and Rio Grande Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Colorado.																				
Blanca.	Costilla.	7,865	4	62.9	.....	87 ^a	7	33 ^a	28	43 ^a	1.46	.....	0.62	0	7	20 ^a	w.	Lewis F. Botens.	
Cumbres.	Concejos.	10,015	6	61.8	.....	90	7	35	28	46	1.34	+ 0.17	1.14	0	3	12	15	4	Mrs. Ida M. Lively.
Garnett.	Costilla.	7,576	20	61.8	0.0	78	5	24	29	46	1.92	.....	0.43	0	7	17	7	7	Charles Speiser.
Hermit.	Hinsdale.	8,843	6	51.8	.....	78	5	24	29	46	1.41	.....	0.43	0	6	9	16	6	Miss Marion Mason.
La Veta Pass.	Costilla.	9,000	3	7	64.0	89	5	36	27 ^a	46	0.95	0.53	0	5	12	9	10	Clara M. Wright.
Manassa.	Concejos.	7,700	7	61.9	.....	81	5	34	28	47	2.03	+ 0.46	0.53	0	7	9 ^a	4 ^a	17 ^a	J. B. Chapman.
Platoro.	do.	9,875	6	61.9	+ 1.1	98 ^b	6	38 ^b	28 ^b	49 ^b	2.15	.....	0.48	0	12	15	9	7	Walter R. Hook.
Saguache.	Saguache.	7,740	21	65.4	+ 1.1	88 ^b	6	38 ^b	28 ^b	49 ^b	2.03	+ 0.46	0.53	0	7	9 ^a	4 ^a	17 ^a	Eugene Williams.	
San Luis.	Costilla.	7,794	7	61.9	+ 0.9	88	6 ^a	34	28	47	2.00	- 0.34	1.47	0	3	20	9	2	P. B. Albright.	
Wagon Wheel Gap Experimental Station.	Mineral.	9,235	14	56.2	+ 1.2	81	5	34	28	39	1.83	- 0.32	0.65	0	14	7	19	5	U. S. Weather Bureau.	
New Mexico.																				
Agricultural College.	Dona Ana.	3,863	52	78.7	- 2.1	104	11	53	24	39	1.27	- 0.54	0.62	0	4	23	6	2	N. Mex. Agricultural College.	
Alamogordo (near).	Otero.	4,358	16	81.2	+ 1.6	107	12 ^a	55	25	44	0.01	- 1.59	0.01	0	1	16	10	5	Edward Le Breton.	
Alamogordo.	do.	4,320	4	79.4	.....	102	11	57	24	38	2.28	.....	0.28	0	1	29	0	0	Agent E. P. & S. W. R. R.
Alamos Ranch.	Sandoval.	7,800	3	.....	.....	.....	.....	.....	.....	.....	1.22	.....	0.45	0	10	31	0	0	H. H. Brook.
Albuquerque.	Bernalillo.	5,000	37	.....	.....	.....	.....	.....	.....	.....	0.46	- 0.76	0.34	0	4	20	11	0	Pitt Ross, C. E.
Ancho.	Lincoln.	6,112	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agent E. P. & S. W. R. R.	
Anchor Mine.	Taos.	10,600	2	.....	.....	.....	.....	.....	.....	.....	2.35	.....	0.45	0	6	2	14	15	W. Charles H. Brigham.
Artesia.	Eddy.	3,350	5	79.2	.....	108	11	55	10	45	0.10	.....	0.10	0	1	29	1	1	Will Benson, C. E.
Aspen Grove Ranch.	Rio Arriba.	9,000	4	.....	.....	.....	.....	.....	.....	.....	1.28	.....	0.38	0	9	8	22	1	Junius D. Maupin.
Batamans Ranch.	do.	8,900	4	.....	.....	.....	.....	.....	.....	.....	1.87	.....	0.80	0	6	16	15	0	John W. Bateman.
Berino.	Dona Ana.	3,788	2	.....	.....	.....	.....	.....	.....	.....	1.00	.....	0.68	0	2	12	16	3	J. C. Rishabarger.
Bluewater.	Valencia.	6,732	11	64.4	- 4.9	92	4 ^a	33	28	55	2.52	+ 0.32	1.75	0	6	12	16	3	Bluewater Development Co.	
Boaz.	Chaves.	4,154	4	78.2	.....	104	13 ^a	50	31	44	0.12	.....	0.12	0	1	25	6	0	William Horner.
Capitan.	Lincoln.	6,348	4	.....	.....	.....	.....	.....	.....	.....	1.10	.....	0.85	0	2	1	28	2	Agent E. P. & S. W. R. R.
Carlsbad.	Eddy.	3,120	18	80.8	+ 0.5	109	11	60	10 ^a	42	0.70	- 2.26	0.45	0	3	23	6	2	U. S. Reclamation Service.	
Carrizozo.	Lincoln.	5,429	5	.....	.....	.....	.....	.....	.....	.....	0.15	.....	0.10	0	5	22	9	0	Agent E. P. & S. W. R. R.
Carrillos (near).	Santa Fe.	5,700	1	73.8	- 2.3	99	7 ^a	44	27	44	0.82	.....	0.34	0	7	12	18	1	Irving C. Sweet.
Chama.	Rio Arriba.	7,851	15	82.4	- 2.3	89	5 ^a	34	27 ^a	46	1.78	- 0.73	0.70	0	6	21	10	0	Frank C. Johnson.	
Cloudcroft.	Otero.	8,650	11	68.0	.....	92	5 ^a	46	22	36	0.40	.....	0.40	0	1	6	23	2	Do.
Corona.	do.	6,666	4	.....	.....	.....	.....	.....	.....	.....	0.08	.....	0.04	0	3	22	9	0	Do.
Coyote.	Sandoval.	5,800	4	.....	.....	.....	.....	.....	.....	.....	0.78	.....	0.42	0	3	14	14	3	Juan Vilij.
Cundiyo.	Santa Fe.	6,889	4	.....	.....	.....	.....	.....	.....	.....	0.73	.....	0.22	0	4	23	1	7	C. C. Clayton.
Demonstration Farm.	San Miguel.	6,800	4	.....	.....	.....	.....	.....	.....	.....	0.55	.....	0.10	0	5	14	18	1	Agent E. P. & S. W. R. R.
Duran.	Torrance.	6,272	4	73.2	.....	96	10 ^a	49	24	36	0.38	.....	0.38	0	1	23	0	8	A. J. Evans.
Elida.	Roosevelt.	4,345	1	.....	.....	.....	.....	.....	.....	.....	0.60	.....	0.30	0	3	24	7	0	Agent E. P. & S. W. R. R.
Escondido.	Otero.	4,014	4	.....	.....	.....	.....	.....	.....	.....	0.08	.....	0.08	0	4	23	8	2	Geo. H. McBride.
Espanola.	Rio Arriba.	5,590	15	72.4	+ 0.5	100	14	41	28	46	0.38	- 1.16	0.10	0	5	14	17	0	Geo. H. Van Stone.	
Estancia.	Torrance.	8,140	10	70.3 ^a	11	95 ^a	45	17	47	1.21	2.19	0.74	0	6	21	10	0	U. S. Sanitarium.		
Fort Stanton.	Lincoln.	6,231	36	69.0	- 0.1	100	11	43	26	46	2.07	- 0.90	0.60	0	7	9	13	9	Peter Yocky.	
Fort Sumner.	Guadalupe.	3,960	10	76.2	.....	104	11	54	28	45	0.36	- 1.36	0.24	0	5	22	9	0	Agent E. P. & S. W. R. R.
Gallinas.	Lincoln.	6,635	4	.....	.....	.....	.....	.....	.....	.....	0.15	.....	0.10	0	2	14	12	sw.	Agent E. P. & S. W. R. R.
Gallinas Planting Sta.	San Miguel.	7,500	6	63.9	.....	88	11 ^a	42	28	37	2.24	.....	0.73	0	10	13	16	2	U. S. Forest Service.
Glorieta Ranch.	Socorro.	6,300	3	.....	.....	.....	.....	.....	.....	.....	0.65	.....	0.65	0	11	13	18	0	Chas. M. Crossman.
Harveys Upper Ranch.	San Miguel.	9,400	4	60.6	.....	84	5	35	28	37	2.33	.....	0.68	0	4	23	8	2	Agent E. P. & S. W. R. R.
Hobbs.	do.	4,900	24	77.5	.....	106	11	59	16	38	1.48	.....	1.00	0	4	23	8	2	E. H. Byers.
Hondo Reservoir.	Chaves.	3,904	4	77.8	.....	106	11	54	24	44	0.50	.....	0.27	0	5	24	7	0	U. S. Reclamation Service.
Jemez Springs.	Sandoval.	6,100	3	70.9	.....	93	13	48	29	36	0.66	.....	0.23	0	7	9	13	9	Mrs. Ella F. McBride.
Knowles (near).	Eddy.	4,300	4	78.1	.....	104	11	57	26	41	1.28	.....	1.11	0	4	23	7	1	J. W. Mosley.
Laguna.	Valencia.	5,840	10	77.6	.....	103	9	54	21	42	T.	- 1.95	T.	0	0	22	9	1	Gus Weiss.
Lagunita.	Guadalupe.	4,500	8	76.0	.....	101	11	51	31	38	0.56	.....	0.38	0	3	11	19	1	P. A. Turnbull.
Lake Valley.	Sierra.	5,412	8	.....	.....	105	11 ^a	38	27	41	3.37	.....	1.47	0	3	12	27	2	William P. Kell.
Lakewood (near).	Eddy.	3,170	1	80.4	.....	102	7	60	37	38	0.34	.....	0.34	0	1	27	3	1	Mrs. Ella F. McBride.
Lanark.	Dona Ana.	4,156	14	.....	.....	.....	.....	.....	.....	.....	1.25	- 0.36	0.80	0	2	31	0	0	Agent E. P. & S. W. R. R.
Las Vegas.	San Miguel.	6,385	26	68.5	- 0.5	94	13	42	27	41	0.47	- 3.36	0.38	0	3	21	6	4 ^a	Richard Pohl.	
Los Lunas (near).	Valencia.	4,900	24	75.7	- 1.2	100	9	43	28	38	0.85	- 1.96	0.55	0	4	25	6	0	William Pender.	
Magdalena.	Socorro.	6,557	10	72.3	.....	96	12	50	28	38	0.85	.....	0.34	0	11	12	7	0	Rev. R. H. Harper.
Mescalero.	Otero.	6,627	2	65.8	.....	91	11	42	23	38	1.04	.....	0.85	0	3	27	2	0	W. M. Nelson.
Mineral Hill.	San Miguel.	7,050	8	.....	.....	.....	.....	.....	.....	.....	1.87	.....	0.16	0	3	13	17	1	Agent E. P. & S. W. R. R.
Monterey.	Otero.	4,436	4	.....	.....	.....	.....	.....	.....	.....	0.36	.....	0.16	0	3	13	17	1	Miss Julia Hill.
Mountainair.	Torrance.	6,517	11	71.3	+ 1.4	99	12 ^a	40	29	50	1.33	- 0.98	0.88	0	4	23	7	1	Chas. E. Beasley.	
Mountain Park.	Otero.	1	.....	.....	.....	.....	.....	.....	.....	.....	1.42	.....	0.24	0	10	20	8	3	Agent E. P. & S. W. R. R.
Newman.	do.	3,989	4	.....	.....	.....	.....	.....	.....	.....	0.77	.....	0.77	0	1	26	1	4	H. E. Kellar.
Nogal (near).	Lincoln.	8,000	1	.....	.....	.....	.....	.....	.....	.....	1.21	.....	0.38	0	8	14	16	1	Agent E. P. & S. W. R. R.
Noria.	Dona Ana.	4,114	4	.....	.....	.....	.....	.....	.....	.....	1.58	.....	1.22	0	4	21	6	2	E. M. Hove.
Orogrande.	Otero.	4,171	4	.....	.....	.....	.....	.....	.....	.....	1.00	.....	0.80	0	2	9	20	2	Agent E. P. & S. W. R. R.
Oscura.																				

TABLE 1.—*Climatological data for July, 1913. District No. 8—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.			Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.		Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeted.	Number of rainy days, 0.01 inch or more.	
					Highest.	Date.											
<i>New Mexico—Contd.</i>																	
Vaughn.	Guadalupe.	5,952	4														Agent E. P. & S. W. R. R.
Virgylvia.	Taos.	7,500	3	69.6			92	30	49	10	36	0.10	0.05	0	2	16	s.
Willard.	Torrance.	6,086	1	72.1			106	1	39	28	55	0.95	0.20	0	7	23	Dr. I. N. Woodman.
Winsors.	San Miguel.	8,200	17	56.8	-1.7	82	5	33	28	40	3.96	-0.52	0.74	0	5	18	Dr. V. S. Cheyney.
<i>Texas.</i>																	James F. Matty.
Abilene.	Taylor.	1,738	28	84.3	+ 2.1	102	10	66	21	30	0.72	-1.68	0.28	0	5	17	s.
Albany.	Shackelford.	1,429	19	83.2	-0.1	108	10	61	22†	41	0.70	-2.25	0.41	0	3	28	U. S. Weather Bureau.
Alice.	Jim Wells.	209	3	83.5		101	9	65	12	33	0.60		0.35	0	2	26	N. L. Bartholomew.
Alpine.	Brewster.	4,482	3	83.4		102	20	68	15†	33	1.80		1.60	0	2	17	R. M. Boerum.
Alvin.	Brazoria.	49	15	83.4		100	20	65	19	30	1.19		0.78	0	2	14	H. B. Cowles.
Anahuae.	Chambers.	23	4														Alvin Japanese Nursery.
Angleton.	Brazoria.																Lone Star Canal Co.
Antelope.	Jack.																N. C. Winters.
Aspermont.	Stonewall.																Paul Rudolph.
Austin.	Travis.	593	57	84.0	+ 0.3	100	20	70	14	28	1.45		1.17	0	1	25	Bryant Link Co.
Ballinger.	Runnels.	1,637	17	84.6	+ 2.5	107	31	66	77	40	0.43	-2.61	0.25	0	3	23	A. Deussen.
Barstow.	Ward.	2,573	6	82.4		105	11	61	26	34	0.20		0.20	0	1	22	E. M. Eubank.
Bay City.	Matagora.	53	3	82.2		94	20	73	20	21	2.53		1.80	0	3	12	F. P. Ingerson.
Beaumont.	Jefferson.	29	12	85.2	+ 2.3	100	7	71	30†	27	1.71	-3.25	0.75	0	7	E. C. Quereau.	
Beeville.	Bee.	225	17	82.4	-1.4	103	20†	64	30	38	0.12	-3.72	0.08	0	3	16	John Bender.
Big Spring.	Howard.	2,306	15	82.7	+ 0.1	105	11	62	26	36	0.97	-2.02	0.65	0	2	20	Geo. A. Faupel.
Blanco.	Blanco.	1,350	17	84.4	+ 2.7	103	20	66	22†	36	0.06	-3.47	0.06	0	1	27	B. Reagan.
Boerne.	Kendall.	1,412	21	80.9	+ 0.2	104	25	60	8	40	0.33	-3.84	0.28	0	2	26	R. C. Crist.
Booth.	Fort Bend.	81	12														F. W. Schweppe.
Bowie.	Montague.	1,113	18	87.1	+ 3.8	107	23	67	26	33	0.85	-1.54	0.85	0	1	20	T. R. Booth.
Breedy.	Brazoria.	1,500	12	83.6	+ 2.1	104	20	70	6†	32	0.08	-5.25	0.08	0	1	31	Craig Anderson.
Brazos.	Palo Pinto.	801	4														Prof. J. O. Wallace.
Brenham.	Washington.	350	28	84.7	+ 1.4	102	20	71	18	26	1.05	-2.08	0.56	0	3	26	Mrs. M. A. Stevens.
Bridgeport.	Wise.	754	4														Robt. E. Boyett.
Brighton.	Neuces.	12	20	84.6 ^m	+ 1.7	98 ^m	31	72 ^m	7	23 ^m	1.25		0.82	0	2	22	Mrs. B. F. Sloan.
Brownsville.	Cameron.	38	49	81.4 ^d	-2.4	96	20	69	10	25 ^b	0.28	-1.29	T.	0	3	19	Claude Strange.
Brownwood.	Brown.	1,342	21	84.6	+ 1.2	105	10†	66	21†	37	0.80	-1.60	0.24	0	3	12	G. H. Ritter.
Buena Vista.	Pecos.	5									0.25		0	1	30	U. S. Weather Bureau.	
Cameron.	Milan.															W. H. Denis.	
Carmona.	Polk.	330	5	82.8		103	20	66	16†	34	1.81		1.26	0	4	12	J. E. Watts.
Carrizo Springs.	Dimmit.	1		85.6		101	14†	70	6†	30	0.45		0.25	0	2	21	M. S. Spitzer.
Claytonville.	Fisher.	2,100	18	83.4	+ 2.4	104	12†	62	26	38	1.34	-1.12	1.12	0	3	30	M. E. Cook.
Cleburne.	Clifton.	671	2														Wm. Lanius.
Johnson.	Bosque.	758	8														W. S. Ownsby.
Coleman.	Coleman.	1,710	19	86.8	+ 5.8	106	31	63	16	36	1.81	-3.14	0.81	0	5	14	R. M. Jones.
Collegeport.	Matagora.	1		82.4		100	10	68	6†	30	1.90		1.90	0	0	18	J. E. Stevens.
College Station.	Brazos.	308	23	86.2	+ 2.8	106	23	67	18	36	0.06	-2.68	0.04	0	3	9	H. A. Clapp.
Colorado.	Mitchell.	2,066	19	80.8	-1.8	103	23	62	15	35	2.69	-0.47	1.48	0	4	16	Prof. G. S. Fraps.
Colorado.	Colorado.	206	9														R. M. Webb.
Comanche.	Comanche.	1,358	7	85.4		107	10	64	28	33	1.02		0.85	0	4	20	Mrs. Sophie Bridge.
Corpus Christi.	Nueces.	20	26	81.4	-1.3	94	20	72	20	22	1.18	-0.48	1.07	0	3	12	R. V. Nabers.
Corsicana.	Navarro.	445	24	84.9	+ 1.0	99	8†	69	21	28	2.37	-0.28	1.53	0	3	23	U. S. Weather Bureau.
Cotulla.	La Salle.	425	6									0.00		0			D. H. Winn.
Crockett.	Houston.	350	9	86.4		108	20	67	21	34	0.31		0.21	0	3	23	Holland Agricultural Co.
Cuero.	De Witt.	84.7	-0.1	101	20	69	17	30	13	34	1.08	-1.56	0.75	0	7	1	A. M. Rencher.
Dallas.	Dallas.	177	23	84.7	+ 1.1	101	20	69	17	30	1.38	-2.29	0.19	0	3	19	H. R. Frobes.
Danevang.	Wharton.	466	24	85.5	+ 1.6	106	10	69	3†	32	2.48	-0.92	0.89	0	4	21	G. A. Eisenlohr.
Del Rio.	Valverde.	145	17	86.8	+ 3.6	105	20	70	6†	31	1.46	-3.44	0.67	0	4	26	H. P. Hermansen.
Deaton.	Devine.	952	7	84.5	-0.2	99	20	66	26	37	1.52	-0.70	1.52	0	1	22	U. S. Weather Bureau.
Devine.	Denton.	621															T. W. Buell.
Dialville.	Medina.	653	3														M. A. Keller.
Dilley.	Cherokee.	575	10	88.4	+ 2.5	102	19	66	21	30	1.05		0.55	0	2	15	J. M. B. McKnight.
Dublin.	Frio.	569	3									0.50		0	1	15	John W. Miller.
Duval.	Erath.	1,466	17	85.6	+ 3.8	107	10	68	21†	34	0.35	-2.29	0.19	0	3	19	Ino. O. Shafer.
Eagle Pass.	Travis.	820	24	85.2	+ 0.8	101	10†	71	16†	27	0.09	-2.55	0.09	0	1	23	J. C. Edgar.
Eastland.	Maverick.	800	36	87.2	-0.6	105	20	70	26	31	0.11	-1.65	0.10	0	2	22	Charles Tarver.
Edna.	Eastland.	1,420	6	83.0		105	23†	58	27	42	T.		T.	0	0	26	James A. Beard.
Jackson.	Jackson.	71	4														E. L. Fairless.
El Paso.	El Paso.	3,782	34	81.5	+ 1.0	104	11	61	21	32	1.13	-1.00	0.60	0	5	19	U. S. Weather Bureau.
Encinal.	Le Salle.	588	5														Waifer Pettit.
Fairland.	Burnet.	1,000	24	84.0	+ 1.3	105	20†	61	20	44	0.43	-1.46	0.22	0	2	17	R. L. Bush.
Falfurrias.	Brooks.	5		83.6		101	23†	66	10†	32	1.10		0.73	0	3	27	W. A. Gardner.
Flatonia.	Fayette.	465	5	85.8		108	20	68	16	35	0.25		0.17	0	2	20	Fred W. Laux.
Flint.	Smith.	483	3	85.0		106	19	68	23	34	1.12		1.03	0	2	21	F. C. C. Carter.
Fort Clark.	Kinney.	1,050	42	83.5	-0.6	98	13†	68	28	28	1.50	-0.46	1.50	0	1	29	Post Hospital.
Fort Davis.	Jeff Davis.	5,000	34														C. H. Bird.
Fort McIntosh.	Webb.	460	45	87.2	+ 1.1	104	20	68	9	35	0.00	-1.94	0.00	0	0	24	Post Hospital.
Fort Stockton.	Pecos.	3,050	16	81.8	+ 0.9	106	11	61	29	36	2.25		0.00	0	3	28	W. H. Butz.
Fort Worth.	Tarrant.	670	18	85.1	+ 1.4	106	10	65	24	38	4.36	+ 1.32	2.50	0	6	16	U. S. Weather Bureau.
Fowlerton.	Le Salle.	87.0															Leo S. Karren.
Fredericksburg.	Gillespie.	1,742	24	81.2	-2.5	98	20†	62	24	34	0.15	-2.31	0.15	0	1	15	Arthur Striegler.
Gall.	Borden.	100	1	80.7		100	16	62	28	36	1.65	-1.15	1.15	0	3	23	J. D. Brown.
Gainesville.	Cooke.	738	23	85.9	+ 4.1	105	8†	65	22	31	3.27	-1.07	1.95	0	3	1	J. L. Hickson.
Galveston.	Galveston.	99	42	83.2	+ 0.2	99	20	75	20	24	1.45	-2.50	1.1				

TABLE 1.—Climatological data for July, 1913. District No. 8—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Number of rainy days 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direc- tion.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.							
Texas—Continued.																					
Hampstead.	Waller.	254	9								0.40		0.40	0	1	22	0	0	s.	J. H. Hancock.	
Henderson.	Rusk.	500	4								1.07		0.40	0	6	21	6	4		M. Kangerga.	
Hewitt.	McLennan.	664	18								1.02		2.34	0	3	23	2	7	s.	L. H. Earls.	
Hico.	Hamilton.	2									1.44		1.00	0	4					John A. Eakins.	
Hillsboro.	Hill.	628	10	85.8		108	97	66	47	40	0.37	-2.10	0.20	0	3					Thompson & Campbell.	
Hondo.	Medina.	901	14	83.8	-1.6	100	20†	68	9	30	0.08	-3.25	0.08	0	5	20	9	2	se.	H. E. Haas.	
Houston.	Harris.	138	23	84.0	+ 0.8	101	20	73	21	27	1.37	-2.72	0.97	0	0	27	0	4	s.	U. S. Weather Bureau.	
Huntsville.	Walker.	400	29	85.0	+ 1.6	103	20	69	21	28	T.	-2.91	T.		0	27	0	4	s.	W. Y. Barr.	
Jayton.	Kent.	3									1.03		0.60	0	3	29	0	2	s.	Wichita Valley R. R. Co.	
Jewett.	Leon.	496	9	87.1		110	20	68	21	39	T.		0.60	0	0	20	11	0	s.	Earle Adkison.	
Junction.	Kimble.	1,645	12																	Judge John S. Durst.	
Kaufman.	Kaufman.	448	14	85.6	+ 1.6	103	30	68	21	30	3.65	-0.64	3.00	0	2	24	5	2	s.	B. J. Hubbard.	
Kerrville.	Kerr.	1,650	17	81.3	+ 1.2	98	20†	60	31	38	4.44	-3.32	0.30	0	2	14	16	1	s.	Robert E. Horne.	
Knickerbocker.	Tom Green.	2,050	9								0.90		0.90	0	1					Jos. Tweedy.	
Kopperl.	Bosque.	576	16								2.10		1.40	0	2	18	8	5	s.	T. A. Johnson.	
Lagrange.	Fayette.	276	3								2.01		1.80	0	5	20	5	6	s.	August Hermes.	
Lamesa.	Dawson.	2,500	3								1.11		1.11	0	1					S. D. Austin.	
Lampasas.	Lampasas.	1,026	21	83.9	+ 1.3	102	10†	67	18†	35	2.29	-1.57	0.15	0	3	28	0	3	s.	Mrs. K. I. Webber.	
La Farra.	Willacy.	38	11								0.65	-2.03	0.55	0	2					John G. Kennedy.	
Laredo.	Webb.	421									0.60		0.40	0	2	10	13	8	s.	Mrs. A. H. Jackson.	
Leureles Ranch.	Nueces.	20	13																	Matt Cody.	
Liberty.	Liberty.	38	9	83.6		108	20	67	15†	37	0.65		0.28	0	3	24	2	5	s.	Mrs. Fannie Sneed.	
Llano.	Llano.	1,040	22	86.0	+ 0.7	103	10	70	18	31	0.03	-1.71	0.03	0	1	21	10	0	s.	E. W. Torrence.	
Llano Grande.	Hidalgo.	86	5	81.8		100	9†	65	6†	34	2.65		2.00	0	3	13	18	0	s.	M. D. Wardlow.	
Long Lake.	Anderson.	239	8										0.40	0	1	24	3	4	s.	Geo. W. Ellis.	
Longview.	Gregg.	336	27	86.1	+ 2.4	104	8†	70	21	29	3.32	+ 0.09	1.56	0	5	26	2	3	s.	C. A. Propst.	
Lubbock.	Lubbock.	2											0.40	0	1	30	1	0	s.	L. V. Cory.	
Lufkin.	Angelina.	325	6	83.7		104	8	67	20	35	1.83		0.98	0	3	19	4	8	s.	T. A. King.	
Luling.	Caldwell.	418	24	85.8	+ 1.7	103	20	70	18	31	0.04	-2.73	0.02	0	2	16	14	1	s.	John Carter.	
Lyford.	Cameron.																		B. D. Stevenson.		
McGregor.	McLennan.	713	3								0.00		0.00	0	0	30	1	0	s.	W. H. Whitley.	
McKinney.	Collin.	612	11	83.2		103	24	66	22	34	6.16	+ 2.88	2.08	0	7	20	7	4	s.	H. Killingsworth.	
Marathon.	Brewster.	4,043	3	73.0		92	11†	55	28	31	3.83		2.20	0	4	23	6	2	e.	Rev. A. P. Willis.	
Marble Falls.	Burnet.	771	5								T.		T.	0	0	20	6	5	s.	B. E. Cochran.	
Maria.	Presidio.	5									0.00		0.00	0	0					W. L. Jones.	
Marshall.	Harrison.	375	13	83.6		102	19	66	21†	35	2.73	-0.33	0.94	0	5	26	2	sw.	Lee Scott.		
Matacgora.	Matacgora.	12	3								0.00		0.00	0	0	31	0	0	s.	W. E. McNabb.	
Mexia.	Limestone.	537	9	86.9		106	9	70	21	31	0.46		0.25	0	2	16	10	5	s.	Isidore Newman.	
Midland.	Midland.	10	79.6*	99 ^a	14	60 ^a	20	33 ^a	1.27	-0.13	0.85		0.25	0	2	13 ^a	0 ^a	0 ^a	s.	A. G. Graham.	
Mission.	Hidalgo.	140	3																	Myron J. Conway.	
Mont Belvieu.	Chambers.	65	3								2.08		0.86	0	7	22	8	1	s.	A. R. Shearer.	
Monteall.	Uvalde.	1									2.60		2.14	0	3	15	13	3	s.	A. G. Beecroft.	
Mount Blanco.	Crosby.	2,750	24	78.6	0.0	98	31	61	19†	34	1.05	-2.14	1.05	0	1	15	15	1	s.	Geo. W. Smith.	
Nacogdoches.	Nacogdoches.	271	14	82.2	+ 1.4	98	8	67	7†	31	0.23	-4.23	0.81	0	1	24	5	5	s.	Miss Mary Hofmann.	
New Braunfels.	Comal.	720	24	82.8	0.0	98	31	69	18†	28	1.40	-1.29	0.93	0	2	14	17	0	s.	J. Giesecke.	
Palestine.	Anderson.	510	31	83.7	+ 2.2	99	8	67	21	29	0.71	-2.29	0.68	0	2	24	7	0	s.	U. S. Weather Bureau.	
Panter.	Hood.	1,000	24								0.13		2.60	0	1					E. H. Snyder.	
Pearl.	Frio.	629	3								0.27		0.26	0	2					Earnest De Vilbiss.	
Pierce.	Wharton.	102	7	84.3		103	20	69	19	32	1.52		0.56	0	6	12	1	18	s.	R. B. Pointer.	
Plainview.	Hale.	3,370	17	78.0	+ 1.2	101	11	58	21†	36	2.89	-0.88	2.60	0	4	19	12	0	s.	J. F. Sander.	
Port Lavaca.	Calhoun.	20	12	84.0	+ 1.0	102	20	70	20	32	0.74	-3.53	1.55	0	2	24	6	1	s.	J. H. Bickford.	
Post.	Garza.	2,700	3								1.72		1.55	0	2	21	6	4	s.	W. T. Mann.	
Putnam.	Callahan.	1,591									0.00		0.00	0	0	31	0	0	s.	S. M. Davis.	
Raymondville.	Cameron.	2		81.8		97	22†	65	4	29	3.90		3.40	0	6	17	14	0	s.	C. H. Pease.	
Ricardo.	Nueces.	57	4	82.4		100	23†	66	18	29	0.15		0.15	0	1	19	9	3	s.	J. S. Lehman.	
Rio Grande.	Starr.	36									0.50	-0.78	0.50	0	1	20	9	2	s.	D. N. Garza.	
Riverville.	Walker.	169	9								1.45		1.25	0	2	26	2	3	s.	Mrs. C. W. Higdon.	
Rockland.	Tyler.	136	9								0.70		0.60	0	2	17	8	6	s.	Mack Dunkin.	
Rockport**.	Aranas.	12	13	82.2	-0.8	88	8†	74	20	12	0.28	-2.20	0.15	0	5	29	2	0	s.	Mrs. G. B. Grewe.	
Rosselle.	Atascosa.	558	6	83.3		99	23	67	8	30	0.83		0.64	0	3	12	18	1	s.	W. F. M. Ross.	
Runge.	Karnes.	308	18								0.00	-3.13	0.00	0	0					Reiffert & Frobese.	
Sabinal.	Uvalde.	964	9	83.9		101	20†	68	9†	31	0.86		0.65	0	2	18	11	2	s.	H. W. Reilly.	
Salado.	Bell.	3									0.92		0.92	0	1	25	3	3	s.	L. M. Crockett.	
San Angelo.	Tom Green.	1,847	22	83.4 ^a	0.0	104	14	60	27	34 ^a	0.60	-2.03	0.60	0	1	24	7	0	s.	Sam Crowther.	
San Antonio.	Bexar.	701	28	84.5	+ 2.1	101	20	71	9	28	0.03	-2.19	0.03	0	1	28	3	0	s.	U. S. Weather Bureau.	
San Augustine.	San Augustine.	360	4	82.6		102	19	66	19	36	2.65		1.07	0	5	15 ^b	4 ^b	10 ^b	s.	F. A. Wilson.	
San Juanito.	Hidalgo.	4		85.1		102	26	69	27†	32	0.14		0.05	0	4	0	6	25	s.	J. B. McAllen.	
San Marcos.	Hays.	558	20	83.9	+ 0.9	100	20	63	26†	68	1.87	0.00	-3.79	0.00	0	0	27	0	4	s.	Miss L. C. Ford.
San Saba.	San Saba.	1,712	12	83.6	+ 1.7	103	31	64	18	36	0.22	-2.54	0.22	0	1	26 ^a	4 ^a	0 ^a	s.	Jas. Burns.	
Santa Anna.	Coleman.	1,744									0.00		0.00	0	0	24	6	1	s.	L. L. Shield.	
Santa Gertrudes.	Nueces.	13									0.61										

TABLE 2.—*Daily precipitation for July, 1913. District No. 8, Texas and Rio Grande Valley.*

TABLE 2.—*Daily precipitation for July, 1913. District No. 8—Continued.*

TABLE 2.—*Daily precipitation for July, 1913. District No. 8—Continued.*

Stations.	Watershed.	Day of month.																													Total.								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31							
Texas—Continued.																																							
Hewitt	Brazos	.60																																.15	1.02				
Hico	do	1.00																																T.	1.44				
Hillsboro	do	.20	.03																																.037				
Hondo ||	Nueces																																			.068			
Houston	Coast	.23	T.	.01																																1.37			
Huntsville ||	Trinity		T.	T.																																T.	1.03		
Jayton	Brazos		T.																																		T.		
Jewett ||	Trinity																																						
Junction	Colorado		T.	3.00	.65																																	3.65	
Kaufman	Trinity																																						0.44
Kerrville ||	Guadalupe	T.																																					0.44
Knickerbocker	Colorado																																						0.90
Kopperl ||	Brazos																																						2.10
Lagrange	Colorado																																						1.11
Lamesa	do																																						0.29
Lampassas ||	Brazos																																						0.65
La Parra	Coast	.55																																					0.60
Laredo ||	Rio Grande	T.																																					0.40
Laureles Ranch	Coast																																						0.40
Liberty ||	Trinity	T.	.26	T.	.14																																	0.65	
Llano ||	Colorado																																						0.03
Llano Grande ||	Rio Grande	.33																																					2.65
Long Lake ||	Trinity	.40																																					0.40
Longview ||	Sabine	.64	1.56	.27																																			3.32
Lubbock	Brazos		T.																																				0.40
Lufkin	Neches	.98																																					1.83
Luling ||	Guadalupe																																						0.04
Lyford	Coast																																						0.00
McGregor	Brazos																																						6.16
McKinney	Trinity	.32	1.06	.02																																			3.88
Marathon	Rio Grande																																						T.
Marble Falls ||	Colorado																																						0.00
Maria	Rio Grande																																						0.00
Marshall	Sabine	.94	.80																																				2.78
Matagora	Coast																																						0.00
Mexia ||	Brazos		T.	T.																																			0.46
Midland	Colorado																																						1.27
Mission ||	Rio Grande																																						0.00
Mont Belvieu	Coast	.58	.44	.09																																			2.08
Montall	Nueces	.02																																					2.60
Mount Blanco	Brazos																																						1.05
Nacogdoches ||	Neches	T.	T.																																				0.81
New Braunfels	Guadalupe																																						0.93
Palestine	Trinity	.68																																					0.71
Panter	Brazos																																						0.13
Pearl	Nueces	T.																																					0.27
Pearl	Colorado	.44	.38																																				1.52
Plainview	Brazos																																						2.89
Port Lavaca	Coast	.28																																					0.72
Post	Brazos																																						0.00
Putnam																																							0.15
Raymondville ||	Coast	.03	.01																																				0.50
Ricardo	do	.15																																					0.70
Rio Grande ||	Rio Grande	.20	1.25																																				1.45
Rockland ||	Neches																																						0.70
Rockport	Coast	T.	.05	.15	T.																																	0.28	
Rossville	Nueces	.64																																					0.00
Runge	San Antonio					</td																																	

TABLE 3.—Maximum and minimum temperatures at selected stations for July, 1913. District No. 8, Texas and Rio Grande Valley.

Date.	Colorado.				New Mexico.										Texas.													
	Garnett.		San Luis.		Agricultural College.		Carlsbad.		Fort Stanton.		Mountain-air.		Rosedale.		Roswell.		Santa Fe.		Santa Rosa.		Abilene.		Big Spring.		Brownsville.		Corpus Christi.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	82	43	79	37	97	61	97	65	87	52	92	54	88	53	96	65	83	58	94	61	93	72	84	67	87	73	85	75
2....	86	41	82	45	95	65	96	68	86	51	93	60	84	51	93	64	85	67	93	61	98	73	86	69	87	77	85	75
3....	86	41	81	48	98	66	100	68	92	50	95	54	86	54	94	64	84	59	95	60	94	70	87	67	85	76	85	76
4....	87	41	83	42	99	68	100	67	89	50	98	48	86	55	96	66	87	60	99	61	93	73	85	72	84	76	84	77
5....	88	47	83	44	99	65	97	66	91	50	96	48	90	56	94	65	89	60	95	63	92	73	86	72	84	77	84	77
6....	87	50	85	50	96	64	96	65	87	51	90	54	88	56	91	67	86	63	92	61	95	70	96	71	87	77	87	76
7....	90	45	85	48	98	69	96	61	90	54	96	53	88	55	93	63	87	62	99	63	97	75	98	68	89	77	90	73
8....	86	48	82	47	101	66	99	64	92	50	93	52	88	60	95	62	87	63	97	61	98	72	98	69	90	75	87	75
9....	84	46	83	51	100	65	98	64	90	56	95	55	87	58	94	62	81	59	96	61	99	71	98	72	87	73	88	73
10....	85	45	77	52	100	69	101	60	93	54	94	52	88	60	95	61	82	56	98	67	102	72	102	69	91	69	88	74
11....	88	50	83	49	104	69	109	67	100	54	96	54	88	59	103	68	90	60	108	69	101	77	105	76	87	75	88	75
12....	86	43	84	47	102	73	105	69	93	51	99	53	92	60	98	68	86	63	95	68	95	74	98	73	87	78	85	78
13....	87	43	83	48	101	73	104	68	92	55	99	57	90	65	99	68	90	66	100	68	96	77	96	74	89	78	85	78
14....	86	49	83	49	92	62	103	69	86	53	93	54	85	56	98	72	86	59	100	60	104	72	88	76	85	78	85	78
15....	82	49	80	45	92	67	102	67	88	55	90	50	80	55	98	68	82	59	97	63	97	74	98	70	89	74	85	76
16....	82	49	82	47	94	69	99	63	87	50	92	49	84	52	94	65	81	50	95	61	96	72	96	69	89	71	86	75
17....	83	45	84	46	92	60	96	60	84	48	89	49	85	55	92	60	84	59	94	59	95	73	97	70	89	71	87	74
18....	80	49	81	44	92	65	97	63	84	50	90	54	80	55	92	65	78	55	91	61	97	73	96	73	89	73	86	76
19....	85	49	83	44	91	63	95	60	87	51	92	56	80	50	88	64	74	53	89	62	98	72	99	68	91	72	86	73
20....	71	50	80	41	89	63	92	67	85	49	88	48	78	50	82	64	70	55	79	61	91	73	93	68	96	71	94	72
21....	75	48	80	40	76	65	83	65	84	51	81	43	72	50	82	63	75	55	85	56	94	66	96	66	92	72	92	75
22....	76	46	77	39	83	60	90	65	75	49	85	48	72	45	88	62	77	52	92	57	98	72	100	67	94	73	92	74
23....	74	45	78	41	89	56	96	61	83	50	86	54	78	50	91	60	75	55	91	62	102	73	103	67	91	75	90	76
24....	76	43	76	41	92	53	97	66	85	47	90	56	82	52	92	64	79	52	91	54	101	71	103	72	88	76	86	76
25....	78	41	74	39	92	58	93	67	82	47	91	52	82	50	91	64	79	54	90	57	94	68	96	67	89	76	87	78
26....	79	39	73	38	93	57	96	62	87	43	88	53	82	48	93	59	79	55	93	58	87	68	85	62	89	76	86	78
27....	77	37	74	30	92	57	100	62	86	49	89	57	80	46	96	58	78	54	94	54	96	70	95	66	90	76	86	77
28....	79	35	75	34	91	60	91	66	84	51	86	42	82	50	90	64	79	52	91	59	96	74	95	72	90	73	85	77
29....	81	36	78	39	90	66	91	65	84	49	82	40	78	50	87	64	80	59	88	58	96	73	96	68	92	70	89	76
30....	78	42	77	39	91	60	93	64	81	49	89	47	78	50	90	65	80	52	94	57	98	72	96	67	91	70	89	75
31....	82	40	84	37	90	60	98	62	82	50	82	50	80	54	88	64	76	56	89	61	100	72	99	67	91	70	90	74
Mns..	79.2	44.4	80.3	43.5	93.8	63.6	97.1	64.5	87.0	50.9	90.9	51.5	83.3	53.5	92.7	64.2	81.6	57.7	93.6	60.6	96.2	72.4	96.1	69.3	89.3	73.4	87.2	75.5

Texas.

Date.	Del Rio.		El Paso.		Fort McIntosh		Fort Stockton.		Fort Worth.		Galveston.		Hallettsville.		Houston.		Lufkin.		Palestine.		Plainview.		San Antonio.		Seymour.		Taylor.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	90	75	97	70	95	75	93	67	89	74	86	79	96	74	88	75	93	72	90	74	87	62	92	74	92	76	92	74
2....	92	74	95	70	97	75	91	65	85	72	85	76	97	76	86	75	90	72	87	65	90	72	94	75	90	75	92	75
3....	92	74	97	72	95	75	96	65	85	74	86	80	91	74	86	74	90	72	87	73	92	74	94	75	90	73	91	73
4....	91	75	99	70	95	73	95	66	90	74	86	76	94	74	90	74	91	71	91	73	90	65	90	74	91	73	93	73
5....	91	74	97	75	95	71	93	67	92	74	86	79	97	72	92	74	94	69	92	72	90	65	92	73	93	73	93	73
6....	92	74	94	72	98	75	93	67	98	75	90	78	97	73	95	74	97	71	93	74	91	63	94	73	95	72	95	72
7....	95	72	96	72	95	75	96	65	99	78	94	73	99	73	98	74	96	72	97	74	93	62	97	72	99	73	99	72
8....	94	74	99	72	100	75	97	64	100	76	95	76	102	73	99	76	104	72	99	77	94	62	96	72	99	73	99	73
9....	98	72	98	74	103	68	99	68	104	75																		